

Figure 1

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1 FPTIPLSRFL DNASLRAHRL HQLAFDITYQE FEEAYIPKEQ KYSFLQNPQT  
51 SLCFSESIPT PSNREETQQK SNLELLRISL LLIQSWLEPV QFLRSVFANS  
101 LVGASDSNV YDLLK DLEEGIQ TLMGRLED GSPRTGQIFK QTYSKFDTNS  
151 HNDDALLKNY GLLYCFRKDM DKVETFLRIV QCRSVEGSCG F

Figure 2

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TTCCCAACCATTCCTTATCCAGGCTTTTGGACAACGCTATGCTCCGCGCCCATCGTCTGCACCAGCTGGC  
CTTTGACACCTACCAGGAGTTTGAAGAAGCCTATATCCCAAAGGAACAGAAAGTATTCATTCTGCAGAAC  
CCCCAGACCTCCCTCTGTTTCTCAGAGTCTATTCCGACACCCTCCAACAGGGAGGAAACACAACAGAAAT  
CCAACCTAGAGCTGCTCCGCATCTCCCTGCTGCTCATCCAGTCGTGGCTGGAGCCCGTGCAGTTCCTCAGG  
AGTGTCTTCGCCAACAGCCTGGTGTACGGCGCCTCTGACAGCAACGTCTATGACCTCCTAAAGGACCTAG  
AGGAAGGCATCCAAACGCTGATGGGGAGGCTGGAAGATGGCAGCCCCGGACTGGGCAGATCTTCAAGC  
AGACCTACAGCAAGTTCGACACAAACTCACACAACGATGACGCACTACTCAAGAACTACGGGCTGCTCTA  
CTGCTTCAGGAAGGACATGGACAAGGTCGAGACATTCTGCGCATCGTGCAAGTGCCGCTCTGTGGAGGGC  
AGCTGTGGCTTC

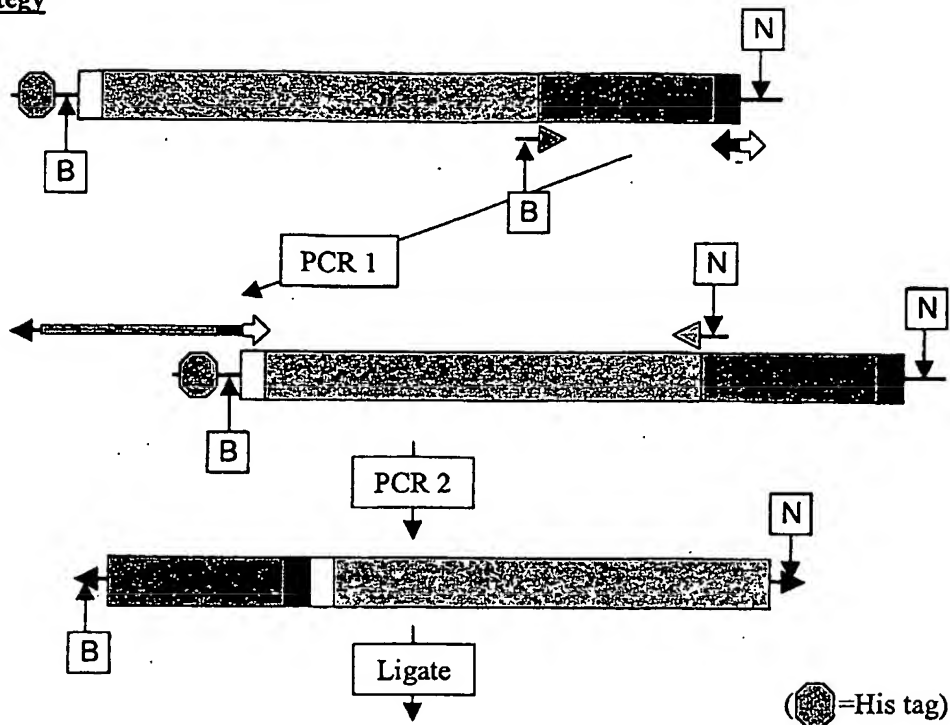
Figure 3

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MDLWQLLLTLALAGSSDAFSGSEATAAILS RAPWSLOS VNPGLKTNSSKEPKFTKCRSPER  
ETF SCHWTDEVHHGTKNLGPIQLFYTRRNTQEWTOEWKECPDYVSAGENSCYFNSSFTSI  
WIPYCIKLT SNGGTVD EKCFSVDEIVQDPPIALNWTL LNVS LTGIHADIQVRWEAPRNADI  
OKGWMVLEYELO YKEVNETKWKMMDPILTTSVPVYSLKVDKEYEVRVR SKQRNSGNYG  
EFSEVLYVTLPOMS QFTCEEDFYFPWLLIIIFGIFGLTVMLFVFLFSKQQRIKMLILPPVPVPK  
IKGIDPDLLKEGKLEEVNTILAIHDSYKPEFHSDDSWVEFIELDIDEPDEKTEESD TDRLSSD  
HEKSHSNLGVKDGDSGRTSCCEPDILETDFNANDIHEGTSEVAQPQRLKGEADLLCLDQKN  
QNNSPYHDACPATQQPSV IQAEKNKPQPLPTEGAESTHQA AHIQLSNPSSLSNIDFYAQVSD  
ITPAGSVVLSPGQKNKAGMSQCDMHPMVSLCQENFLMDNAYFCEADAKK CIPVAPHIKV  
ESHIQPSLNQEDIYITTESLT TAAGRPGTGEHVPGSEMPVPDYTSIHIVQSPQGLILNATALPL  
PDKEFLSSCGYVSTDQLNKIMP

Figure 4  
Strategy

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- 1) PCR1 with forward (GHPermN0x+) and reverse (GHPermL01-) primers.
- 2) Purify PCR product.
- 3) PCR2 with product from PCR1 and reverse primer (GHPermC0x-).
- 4) Purify PCR product.
- 5) Digest PCR product and suitable vector using *Bam*HI and *Not*I.
- 6) Ligate PCR product into vector.

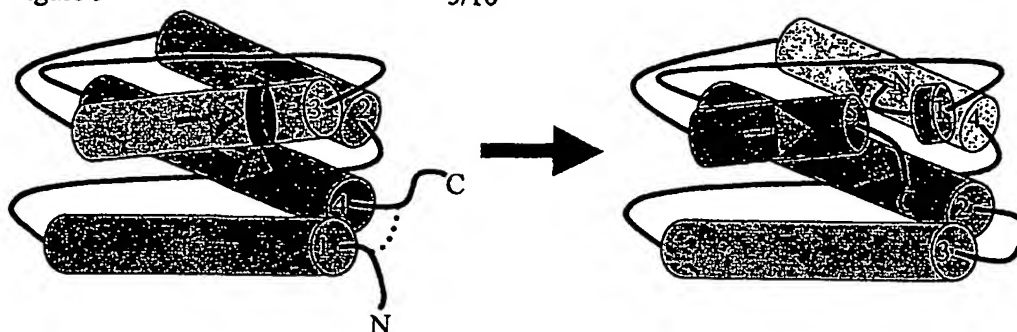
**Primer Pairs/PCRs**

	First PCR		Second PCR	
	Forward	Reverse	Forward	Reverse
GHCP02	GHPermN01+	GHPermL01-	PCR1 product	GHPermC02-
GHCP03	GHPermN01+	GHPermL01-	PCR1 product	GHPermC03-
GHCP04	GHPermN04+	GHPermL01-	PCR1 product	GHPermC01-
GHCP05	GHPermN04+	GHPermL01-	PCR1 product	GHPermC02-
GHCP06	GHPermN06+	GHPermL01-	PCR1 product	GHPermC06-
GHCP07	GHPermN07+	GHPermL01-	PCR1 product	GHPermC07-

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Figure 5

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Growth Hormone

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1  TTCCAACCATTCCTTATCCAGGCTTTTGGACAACGCTAGTCTCCGCGC
51  CCATCGTCTGCACCAGCTGGCCTTTGACACCTACCAGGAGTTTGAAGAAG
101 CCTATATCCCAAAGGAACAGAAGTATTCAATTCCTGCAGAACCCCGAGACC
151 TCCCTCTGTTTCTCAGAGTCTATTCCGACACCCTCCAACAGGGAGGAAAC
201 ACAACAGAAATCCAACCTAGAGCTGCTCCGCATCTCCCTGCTGCTCATCC
251 AGTCGTGGCTGGAGCCCGTGCAGTTCCTCAGGAGTGTCTTCGCCAACAGC
301 CTGGTGACGGCGCCTCTGACAGCAACGTCTATGACCTCCTAAAGGACCT
351 AGAGGAAGGCATCCAAACGCTGATGGGGAGGCTGGAAGATGGCAGCCCCC
401 GGACTGGGCAGATCTTCAAGCAGACCTACAGCAAGTTCGACACAACTCA
451 CACAACGATGACGCACTACTCAAGAACTACGGGCTGCTCTACTGCTTCAG
501 GAAGGACATGGACAAGTTCGAGACATTCTGCGCATCGTGCAGTGCCGCT
551 CTGTGGAGGGCAGCTGTGGCTTC

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GH\_CP01

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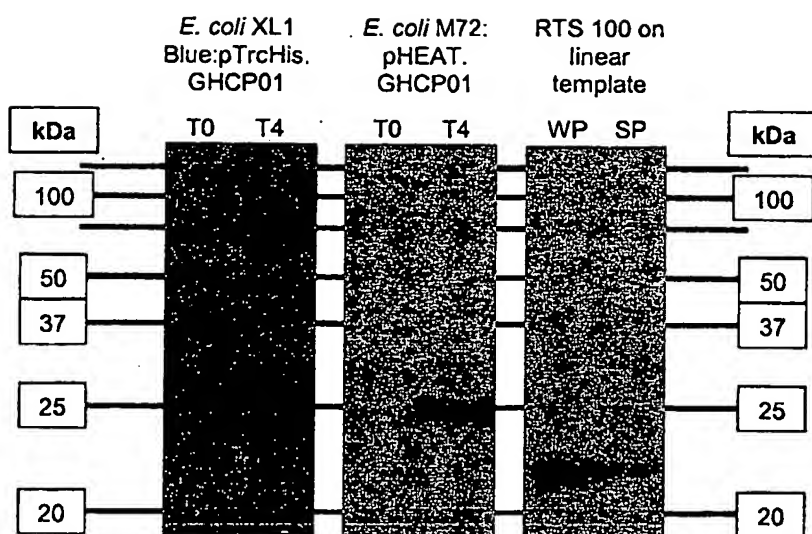
1  ATCCAAACGCTGATGGGGAGGCTGGAAGATGGCAGCCCCCGGACTGGGCA
51  GATCTTCAAGCAGACCTACAGCAAGTTCGACACAACTCACACAACGATG
101 ACGCACTACTCAAGAACTACGGGCTGCTCTACTGCTTCAGGAAGGACATG
151 GACAAGGTCGAGACATTCTGCGCATCGTGCAGTGCCGCTCTGTGGAGGG
201 CAGCACCATTCCCTTATCCAGGCTTTTGGACAACGCTAGTCTCCGCGCCC
251 ATCGTCTGCACCAGCTGGCCTTTGACACCTACCAGGAGTTTGAAGAAGCC
301 TATATCCCAAAGGAACAGAAGTATTCAATTCCTGCAGAACCCCGAGACCTC
351 CCTCTGTTTCTCAGAGTCTATTCCGACACCCTCCAACAGGGAGGAAACAC
401 AACAGAAATCCAACCTAGAGCTGCTCCGCATCTCCCTGCTGCTCATCCAG
451 TCGTGGCTGGAGCCCGTGCAGTTCCTCAGGAGTGTCTTCGCCAACAGCCT
501 GGTGTACGGCGCCTCTGACAGCAACGTCTATGACCTCCTAAAGGACCTAG
551 AG

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Figure 6

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Figure 7

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GH121 to GH118

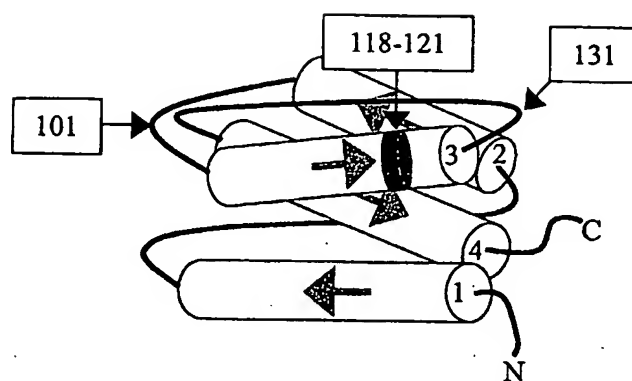
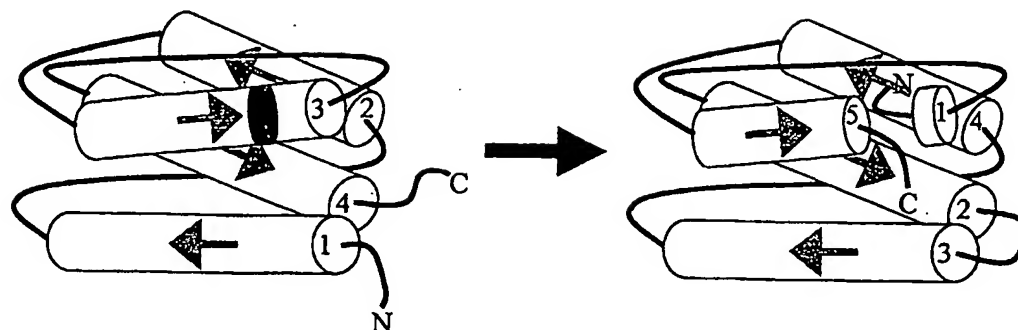
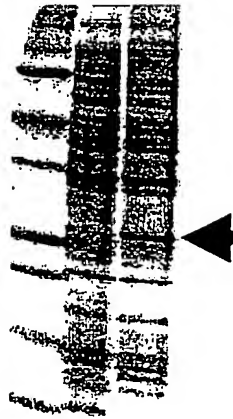


Figure 8

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TABLE 1

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Primer Name	Sequence (5' → 3')	Length
GH_CP01For	gctaggatccaacccttATCCAAACGCTGATGG	33
GH_CP01Link	tggataaggggaatggtGCTGCCCTCCACAGAG	32
GH_CP01Rev	gtcaactggtcagcggccgccCTCTAGGTCCTTTAGGAG	39

TABLE 2

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<b>Primers (all 5'→3')</b>	
<b>Old Termini Linkers</b>	
GHPermL01+	ctctgtggagggcagcACCATTCCCTTATCCA (32)
GHPermL01-	tggataaggggaatggtGCTGCCCTCCACAGAG (32)
<b>GHCP01 (121→118)</b>	
GHPermN01+	gctaggatccaacccttATCCAAACGCTGATGG (33)
GHPermC01- (39)	gtcaactggtcagcggccgcccCTCTAGGTCCTTTAGGAG
<b>GHCP02 (121→119)</b>	
GHPermN01+	gctaggatccaacccttATCCAAACGCTGATGG (33)
GHPermC02- (40)	gtcaactggtcagcggccgcccTCCTCTAGGTCCTTTAGG
<b>GHCP03 (121→120)</b>	
GHPermN01+	gctaggatccaacccttATCCAAACGCTGATGG (33)
GHPermC03-	gtcaactggtcagcggccgcccGCCTTCCTCTAGGTCC (37)
<b>GHCP04 (120→118)</b>	
GHPermN04+	gctaggatccaacccttGGCATCCAAACGCTGATGG (36)
GHPermC01- (39)	gtcaactggtcagcggccgcccCTCTAGGTCCTTTAGGAG
<b>GHCP05 (120→119)</b>	
GHPermN04+	gctaggatccaacccttGGCATCCAAACGCTGATGG (36)
GHPermC02- (40)	gtcaactggtcagcggccgcccTCCTCTAGGTCCTTTAGG
<b>GHCP06 (102→100)</b>	
GHPermN06+ (38)	gctaggatccaacccttGTGTACGGCGCCTCTGACAGC
GHPermC06- (41)	gtcaactggtcagcggccgcccGCTGTTGGCGAAGACACTCC
<b>GHCP07 (132→130)</b>	
GHPermN07+	gctaggatccaacccttAGCCCCGGACTGGGCAG (35)
GHPermC07- (40)	gtcaactggtcagcggccgcccATCTTCCAGCCTCCCCATC